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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,204	09/04/2003	Jong Hun Park	CU-3352 RJS	7000
26530	7590	09/08/2004	EXAMINER	
LADAS & PARRY LLP 224 SOUTH MICHIGAN AVENUE SUITE 1200 CHICAGO, IL 60604			AUDUONG, GENE NGHIA	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/655,204

**Applicant(s)**

PARK, JONG HUN

**Examiner**

Gene N Auduong

**Art Unit**

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. Figure 1A and 1B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ooishi (U.S. Pat. No. 5,689,460).

Regarding claim 1, Ooishi discloses an apparatus for controlling a driving voltage of sense amplifiers for a memory device comprising: a reference voltage generator (figure 49,

Art Unit: 2818

reference voltage generator 4) for generating a reference voltage; a core voltage generator (figure 49, internal voltage generator to generate  $V_{ci}$  for driving the internal circuitry) for generating a core voltage to be used for the driving voltage of the sense amplifier; a comparator (figure 49, comparator circuit 3) for comparing the core voltage generated by the core voltage generator with the reference voltage generated by the reference voltage generator (comparator circuit 3 comparing the internal voltage (core voltage) with the reference voltage generated by the reference voltage generator 4); and a clamp for adjusting level of the core voltage generated by the core voltage generator based on an output signal of the comparator (figure 49, drive transistor 2 for adjusting level of the internal voltage (core voltage) generated by internal generator based on an output signal of the comparator 3, col. 43, lines 63+).

Regarding claim 2, Ooishi discloses the apparatus having all of the limitation according to claim 1, wherein the comparator 3 drives the clamp (drive transistor 2) to discharge a charge of the core voltage to a ground line when the core voltage is greater than the reference voltage, and the comparator controls the clamp to be maintained in a non-drive state when the core voltage is less than the reference voltage (as shown in figure 63 and figure 133, the drive transistor (the clamp) driving the internal voltage to group (pull-down) to short the voltage to ground).

Regarding claim 3, Ooishi discloses the circuit having all of the limitation according to claim 1, wherein the core voltage generated by the core voltage generator includes a sense enable bar signal which is an inverted signal an enable signal, and the enable signal is a signal which enables a sensing operation of the sense amplifier (not shown, but all of the sense amplifier in the circuit is being enable by sense enable signal to turn the sense amplifier on/off).

Art Unit: 2818

Regarding claim 4, Ooishi discloses the apparatus having all of the limitation according to claim 3, wherein the core voltage generator includes: core voltage driver driven by the sense enable bar signal (part of the drive transistor circuit 2); and switch being driven by an output signal of the core voltage driver wherein, when the switch is turned on, an external power voltage supplied to the memory device is used to generate the core voltage of the sense amplifier (col. 43, lines 63+).

### *Conclusion*

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gene N Auduong whose telephone number is (571) 272-1773.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GA  
August 24, 2004



Gene N Auduong  
Primary Examiner  
Art Unit 2818